

Water Management

Adair County, Iowa

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
8B: Judson-----	Somewhat limited Seepage	0.70	Somewhat limited Piping	0.07	Very limited Deep to water	1.00
8C: Judson-----	Somewhat limited Seepage	0.70	Somewhat limited Piping	0.07	Very limited Deep to water	1.00
11B: Colo-----	Somewhat limited Seepage	0.70	Very limited Depth to saturated zone	1.00	Somewhat limited Slow refill	0.30
					Cutbanks cave	0.10
Ely-----	Somewhat limited Seepage	0.70	Somewhat limited Depth to saturated zone Piping	0.43 0.22	Somewhat limited Slow refill Deep to water Cutbanks cave	0.30 0.25 0.10
13B: Vesser-----	Somewhat limited Seepage	0.70	Very limited Depth to saturated zone Piping	1.00 0.11	Somewhat limited Slow refill Cutbanks cave Deep to water	0.30 0.10 0.01
Nodaway-----	Somewhat limited Seepage	0.70	Very limited Piping	1.00	Somewhat limited Deep to water Slow refill Cutbanks cave	0.81 0.30 0.10
24C: Shelby-----	Somewhat limited Seepage	0.05	Not limited		Very limited Deep to water	1.00
24C2: Shelby-----	Somewhat limited Seepage	0.05	Not limited		Very limited Deep to water	1.00
24D: Shelby-----	Somewhat limited Seepage Slope	0.05 0.01	Not limited		Very limited Deep to water	1.00
24D2: Shelby-----	Somewhat limited Seepage Slope	0.05 0.01	Not limited		Very limited Deep to water	1.00

FIELD OFFICE TECHNICAL GUIDE Sec. II
ENGINEERING INTERPRETATIONS

Water Management

Adair County, Iowa

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
24E: Shelby-----	Somewhat limited		Not limited		Very limited	
	Seepage	0.05			Deep to water	1.00
	Slope	0.04				
24E2: Shelby-----	Somewhat limited		Not limited		Very limited	
	Seepage	0.05			Deep to water	1.00
	Slope	0.04				
24F2: Shelby-----	Somewhat limited		Not limited		Very limited	
	Slope	0.18			Deep to water	1.00
	Seepage	0.05				
51: Vesser-----	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
			Piping	0.11	Cutbanks cave	0.10
					Deep to water	0.01
54: Zook-----	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.05	Depth to saturated zone	1.00	Slow refill	0.95
			Hard to pack	0.98	Cutbanks cave	0.10
54+: Zook-----	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
			Hard to pack	0.78	Cutbanks cave	0.10
69C: Clearfield-----	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.05	Depth to saturated zone	1.00	Slow refill	0.95
			Hard to pack	0.79	Cutbanks cave	0.10
					Deep to water	0.01
69C2: Clearfield-----	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.05	Depth to saturated zone	1.00	Slow refill	0.95
			Hard to pack	0.79	Cutbanks cave	0.10
					Deep to water	0.01

FIELD OFFICE TECHNICAL GUIDE Sec. II
ENGINEERING INTERPRETATIONS

Water Management

Adair County, Iowa

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
76B: Ladoga-----	Somewhat limited Seepage	0.70	Not limited		Very limited Deep to water	1.00
76C: Ladoga-----	Somewhat limited Seepage	0.70	Not limited		Very limited Deep to water	1.00
76C2: Ladoga-----	Somewhat limited Seepage	0.70	Not limited		Very limited Deep to water	1.00
76D: Ladoga-----	Somewhat limited Seepage Slope	0.70 0.01	Not limited		Very limited Deep to water	1.00
76D2: Ladoga-----	Somewhat limited Seepage Slope	0.70 0.01	Not limited		Very limited Deep to water	1.00
80C: Clinton-----	Somewhat limited Seepage	0.70	Not limited		Very limited Deep to water	1.00
80D2: Clinton-----	Somewhat limited Seepage Slope	0.70 0.01	Not limited		Very limited Deep to water	1.00
80E2: Clinton-----	Somewhat limited Seepage Slope	0.70 0.04	Not limited		Very limited Deep to water	1.00
93D2: Shelby-----	Somewhat limited Seepage Slope	0.05 0.01	Not limited		Very limited Deep to water	1.00
Adair-----	Somewhat limited Seepage Slope	0.05 0.01	Very limited Depth to saturated zone	1.00	Somewhat limited Slow refill Cutbanks cave Deep to water	0.95 0.10 0.01

FIELD OFFICE TECHNICAL GUIDE Sec. II
ENGINEERING INTERPRETATIONS

Water Management

Adair County, Iowa

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
93E2: Shelby-----	Somewhat limited Seepage Slope	 0.05 0.04	Not limited		Very limited Deep to water	 1.00
Adair-----	Somewhat limited Seepage Slope	 0.05 0.04	Very limited Depth to saturated zone	 1.00	Somewhat limited Slow refill Cutbanks cave Deep to water	 0.95 0.10 0.01
133: Colo-----	Somewhat limited Seepage	 0.70	Very limited Depth to saturated zone	 1.00	Somewhat limited Slow refill Cutbanks cave	 0.30 0.10
133+: Colo-----	Somewhat limited Seepage	 0.70	Very limited Depth to saturated zone	 1.00	Somewhat limited Slow refill Cutbanks cave	 0.30 0.10
175C2: Dickinson-----	Very limited Seepage	 1.00	Somewhat limited Seepage	 0.62	Very limited Deep to water	 1.00
175D2: Dickinson-----	Very limited Seepage Slope	 1.00 0.01	Somewhat limited Seepage	 0.62	Very limited Deep to water	 1.00
179D: Gara-----	Somewhat limited Seepage Slope	 0.05 0.01	Not limited		Very limited Deep to water	 1.00
179D2: Gara-----	Somewhat limited Seepage Slope	 0.05 0.01	Not limited		Very limited Deep to water	 1.00
179E2: Gara-----	Somewhat limited Seepage Slope	 0.05 0.04	Not limited		Very limited Deep to water	 1.00

FIELD OFFICE TECHNICAL GUIDE Sec. II
ENGINEERING INTERPRETATIONS

Water Management

Adair County, Iowa

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
179F2: Gara-----	Somewhat limited Slope Seepage	0.18 0.05	Not limited		Very limited Deep to water	1.00
192C2: Adair-----	Somewhat limited Seepage	0.05	Very limited Depth to saturated zone	1.00	Somewhat limited Slow refill Cutbanks cave Deep to water	0.95 0.10 0.01
192D2: Adair-----	Somewhat limited Seepage Slope	0.05 0.01	Very limited Depth to saturated zone	1.00	Somewhat limited Slow refill Cutbanks cave Deep to water	0.95 0.10 0.01
212: Kennebec-----	Somewhat limited Seepage	0.70	Somewhat limited Piping	0.85	Somewhat limited Deep to water Slow refill Cutbanks cave	0.81 0.30 0.10
220: Nodaway-----	Somewhat limited Seepage	0.70	Very limited Piping	1.00	Somewhat limited Deep to water Slow refill Cutbanks cave	0.81 0.30 0.10
222C: Clarinda-----	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 0.93	Very limited Slow refill Cutbanks cave Deep to water	1.00 0.10 0.01
222C2: Clarinda-----	Somewhat limited Seepage	0.01	Very limited Depth to saturated zone Hard to pack	1.00 0.93	Somewhat limited Slow refill Cutbanks cave Deep to water	0.99 0.10 0.01

FIELD OFFICE TECHNICAL GUIDE Sec. II
ENGINEERING INTERPRETATIONS

Water Management

Adair County, Iowa

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
222D2: Clarinda-----	Somewhat limited Seepage	0.01	Very limited Depth to saturated zone	1.00	Somewhat limited Slow refill	0.99
	Slope	0.01	Hard to pack	0.93	Cutbanks cave Deep to water	0.10 0.01
269: Humeston-----	Somewhat limited Seepage	0.57	Very limited Depth to saturated zone	1.00	Somewhat limited Slow refill	0.30
					Cutbanks cave	0.10
273B: Olmitz-----	Somewhat limited Seepage	0.70	Somewhat limited Piping	0.01	Very limited Deep to water	1.00
273C: Olmitz-----	Somewhat limited Seepage	0.70	Somewhat limited Piping	0.01	Very limited Deep to water	1.00
287B: Zook-----	Somewhat limited Seepage	0.05	Very limited Depth to saturated zone	1.00	Somewhat limited Slow refill	0.95
			Hard to pack	0.98	Cutbanks cave	0.10
Colo-----	Somewhat limited Seepage	0.70	Very limited Depth to saturated zone	1.00	Somewhat limited Slow refill	0.30
					Cutbanks cave	0.10
Ely-----	Somewhat limited Seepage	0.70	Somewhat limited Depth to saturated zone	0.43	Somewhat limited Slow refill	0.30
			Piping	0.22	Deep to water Cutbanks cave	0.25 0.10
315: Nodaway-----	Somewhat limited Seepage	0.70	Very limited Piping	1.00	Somewhat limited Deep to water	0.81
					Slow refill	0.30
					Cutbanks cave	0.10

FIELD OFFICE TECHNICAL GUIDE Sec. II
ENGINEERING INTERPRETATIONS

Water Management

Adair County, Iowa

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
368: Macksburg-----	Somewhat limited Seepage	0.70	Somewhat limited Depth to saturated zone	0.43	Somewhat limited Slow refill	0.30
					Deep to water	0.25
					Cutbanks cave	0.10
368B: Macksburg-----	Somewhat limited Seepage	0.70	Somewhat limited Depth to saturated zone	0.43	Somewhat limited Slow refill	0.30
					Deep to water	0.25
					Cutbanks cave	0.10
369: Winterset-----	Somewhat limited Seepage	0.05	Very limited Depth to saturated zone	1.00	Somewhat limited Slow refill	0.95
			Hard to pack	0.66	Cutbanks cave	0.10
370: Sharpsburg-----	Somewhat limited Seepage	0.70	Not limited		Very limited Deep to water	1.00
370B: Sharpsburg-----	Somewhat limited Seepage	0.70	Not limited		Very limited Deep to water	1.00
370C: Sharpsburg-----	Somewhat limited Seepage	0.70	Not limited		Very limited Deep to water	1.00
370C2: Sharpsburg-----	Somewhat limited Seepage	0.70	Not limited		Very limited Deep to water	1.00
370D: Sharpsburg-----	Somewhat limited Seepage	0.70	Not limited		Very limited Deep to water	1.00
	Slope	0.01				
370D2: Sharpsburg-----	Somewhat limited Seepage	0.70	Not limited		Very limited Deep to water	1.00
	Slope	0.01				

FIELD OFFICE TECHNICAL GUIDE Sec. II
ENGINEERING INTERPRETATIONS

Water Management

Adair County, Iowa

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
412G: Sogn-----	Very limited Seepage Depth to bedrock Slope	 1.00 1.00 0.64	Very limited Thin layer	 1.00	Very limited Deep to water	 1.00
428B: Ely-----	Somewhat limited Seepage	 0.70	Somewhat limited Depth to saturated zone Piping	 0.43 0.22	Somewhat limited Slow refill Deep to water Cutbanks cave	 0.30 0.25 0.10
430: Ackmore-----	Somewhat limited Seepage	 0.70	Very limited Depth to saturated zone Piping	 1.00 0.09	Somewhat limited Slow refill Cutbanks cave Deep to water	 0.30 0.10 0.01
434D: Arbor-----	Somewhat limited Seepage Slope	 0.05 0.01	Somewhat limited Piping	 0.12	Very limited Deep to water	 1.00
451D2: Caleb-----	Somewhat limited Seepage Slope	 0.70 0.01	Somewhat limited Piping Seepage	 0.46 0.04	Somewhat limited Deep to water Slow refill Cutbanks cave	 0.81 0.30 0.10
570B: Nira-----	Somewhat limited Seepage	 0.70	Not limited		Very limited Deep to water	 1.00
570C: Nira-----	Somewhat limited Seepage	 0.70	Not limited		Very limited Deep to water	 1.00
570C2: Nira-----	Somewhat limited Seepage	 0.70	Not limited		Very limited Deep to water	 1.00
570D2: Nira-----	Somewhat limited Seepage Slope	 0.70 0.01	Not limited		Very limited Deep to water	 1.00

FIELD OFFICE TECHNICAL GUIDE Sec. II
ENGINEERING INTERPRETATIONS

Water Management

Adair County, Iowa

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
675C: Dickinson-----	Very limited Seepage	1.00	Somewhat limited Seepage	0.62	Very limited Deep to water	1.00
Sharpsburg-----	Somewhat limited Seepage	0.70	Not limited		Very limited Deep to water	1.00
675D2: Dickinson-----	Very limited Seepage Slope	1.00 0.01	Somewhat limited Seepage	0.62	Very limited Deep to water	1.00
Sharpsburg-----	Somewhat limited Seepage Slope	0.70 0.01	Not limited		Very limited Deep to water	1.00
792D2: Armstrong-----	Somewhat limited Seepage Slope	0.05 0.01	Very limited Depth to saturated zone	1.00	Somewhat limited Slow refill Cutbanks cave Deep to water	0.95 0.10 0.01
822C: Lamoni-----	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 0.25	Very limited Slow refill Cutbanks cave Deep to water	1.00 0.10 0.01
822C2: Lamoni-----	Not limited		Very limited Depth to saturated zone Hard to pack	1.00 0.25	Very limited Slow refill Cutbanks cave Deep to water	1.00 0.10 0.01
822D: Lamoni-----	Somewhat limited Slope	0.01	Very limited Depth to saturated zone Hard to pack	1.00 0.25	Very limited Slow refill Cutbanks cave Deep to water	1.00 0.10 0.01

FIELD OFFICE TECHNICAL GUIDE Sec. II
ENGINEERING INTERPRETATIONS

Water Management

Adair County, Iowa

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
822D2: Lamoni-----	Somewhat limited Slope	0.01	Very limited Depth to saturated zone Hard to pack	1.00 0.25	Very limited Slow refill Cutbanks cave Deep to water	1.00 0.10 0.01
822D3: Lamoni-----	Somewhat limited Slope	0.01	Very limited Depth to saturated zone Hard to pack	1.00 0.25	Very limited Slow refill Cutbanks cave Deep to water	1.00 0.10 0.01
870B: Sharpsburg-----	Somewhat limited Seepage	0.70	Not limited		Very limited Deep to water	1.00
876B: Ladoga-----	Somewhat limited Seepage	0.70	Not limited		Very limited Deep to water	1.00
876C: Ladoga-----	Somewhat limited Seepage	0.70	Not limited		Very limited Deep to water	1.00
993D2: Gara-----	Somewhat limited Seepage Slope	0.05 0.01	Not limited		Very limited Deep to water	1.00
Armstrong-----	Somewhat limited Seepage Slope	0.05 0.01	Very limited Depth to saturated zone	1.00	Somewhat limited Slow refill Cutbanks cave Deep to water	0.95 0.10 0.01
993E2: Gara-----	Somewhat limited Seepage Slope	0.05 0.04	Not limited		Very limited Deep to water	1.00
Armstrong-----	Somewhat limited Seepage Slope	0.05 0.04	Very limited Depth to saturated zone	1.00	Somewhat limited Slow refill Cutbanks cave Deep to water	0.95 0.10 0.01

FIELD OFFICE TECHNICAL GUIDE Sec. II
ENGINEERING INTERPRETATIONS

Water Management

Adair County, Iowa

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
993F2:						
Gara-----	Somewhat limited		Not limited		Very limited	
	Slope	0.18			Deep to water	1.00
	Seepage	0.05				
Armstrong-----	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.05	Depth to	1.00	Slow refill	0.95
			saturated zone			
	Slope	0.04			Cutbanks cave	0.10
					Deep to water	0.01
5030:						
Dumps-----	Not rated		Not rated		Not rated	
Pits-----	Not rated		Not rated		Not rated	